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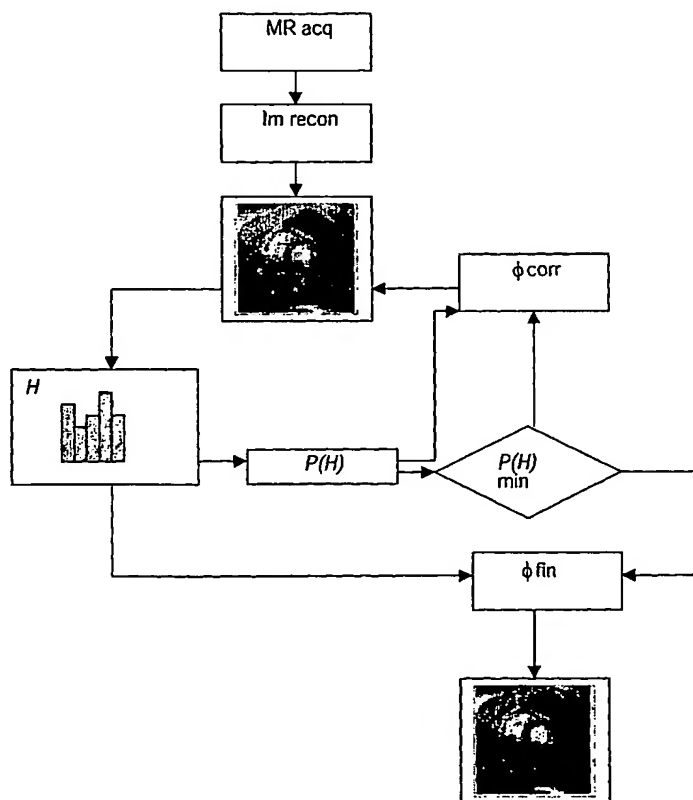
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(54) Title: **MAGNETIC RESONANCE IMAGING WITH HISTOGRAM-BASED PHASE CORRECTION**



(57) Abstract: A magnetic resonance imaging system comprises reconstruction unit that is arranged to reconstruct a complex image of complex valued pixels from magnetic resonance signals. A compute a distribution of phase values of the complex image and to apply a phase correction to the complex image to form a corrected magnetic resonance image. The phase correction is controlled on the basis of the distribution of phase values of the complex image. Notably, the histogram power function is an effective indicator of the accuracy of the phase correction.



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